



ZBDongle-E

Product User Guide

For Advanced Users

Zigbee 3.0 USB Dongle Plus



1. Product Information

1.1 Overview

Product Name	SONOFF Zigbee 3.0 USB Dongle Plus V2
Product Model	ZBDongle-E

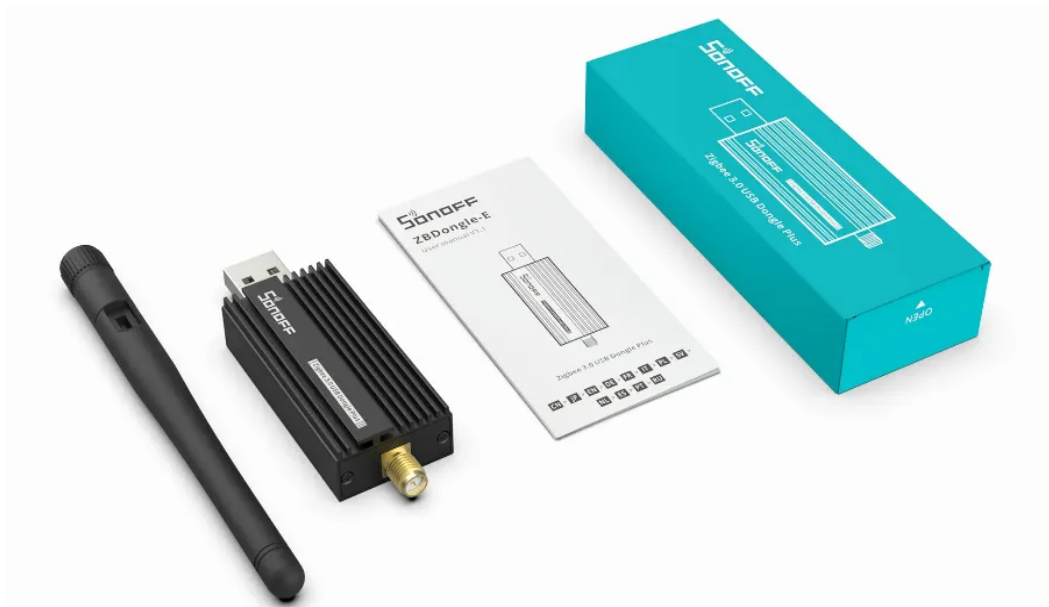
1.2 Introduction

SONOFF Zigbee 3.0 USB Dongle Plus V2 is a universal Zigbee USB coordinator, model “**ZBDongle-E**”. It can be used as a Zigbee gateway in Home Assistant, openHAB, Zigbee2MQTT, or other open-source platforms to control all your Zigbee devices locally.

Additionally, it supports easy firmware flashing using the official Dongle Quick Flasher, allowing it to function as a Zigbee router for network extension, a Thread coordinator with OpenThread RCP firmware, or even a MultiPAN coordinator for multi-protocol support.

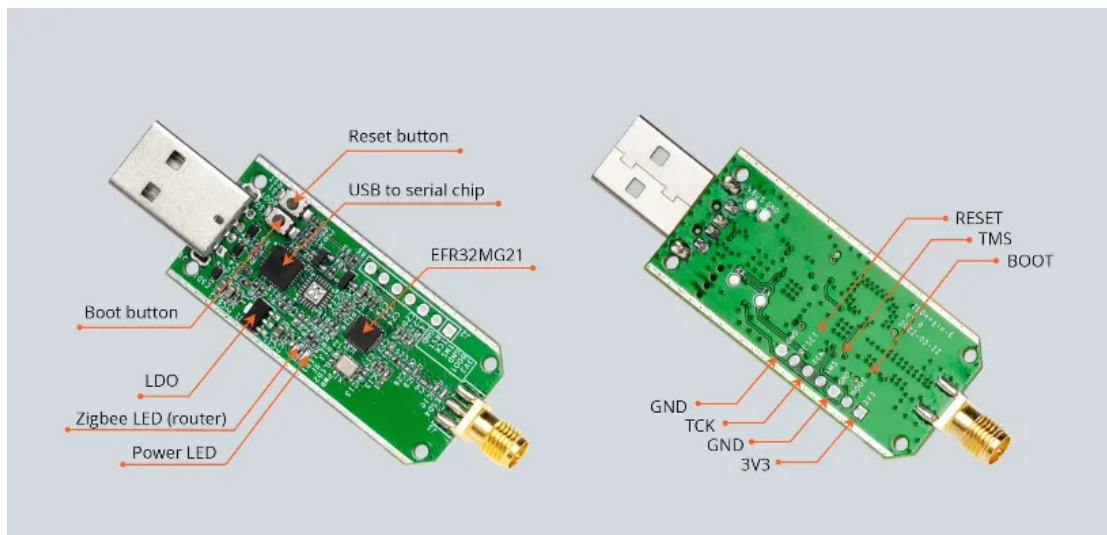
1.3 Packing List

- ZBDongle-E
- Gain antenna * 1
- Quick guide * 1
- Packaging box * 1



1.4 Hardware Specification

Name	Description
Zigbee SoC	EFR32MG21 ARM® Cortex®-M33
USB-Serial Chip	CP2102(N)
Input	DC 5.0 V
Stand-by power consumption	60 mW
Signal range	135 m in free line of sight
Signal Strength	Max 20 dB + antenna gain 2 dB
RF Frequency	2.4 GHz
RF Standard	IEEE 820.15.4 / Zigbee 3.0
Working Temperature	-10 °C to 40 °C
Working Humidity	5%-95%RH
Supported OS	Windows, Ubuntu, Raspberry Pi OS / Raspbian, Docker
Dimensions	75 mm × 25.5 mm × 13.5 mm



1.5 Compatibility

1.5.1 Compatible Open-Source Platforms

Open-Source Platform	Supported
Home Assistant	✓
Zigbee2MQTT	✓
OpenHab	✓
ioBroke	✓
homeseer	✓
Domoticz	✓
Jeemom	✓

Work With Most Popular Smart Home Systems

Works with popular home automation systems such as Home Assistant, ioBroker, Zigbee2MQTT, openHAB, Domoticz, Jeedom, etc



1.5.2 Compatible Devices

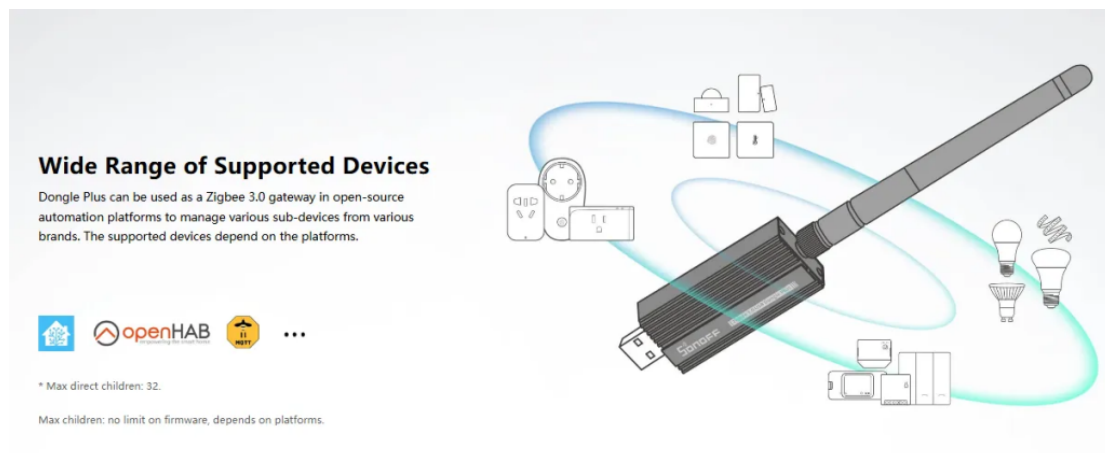
In theory, all Zigbee 3.0 devices are supported, including various lights, switches, and sensors from brands such as Philips Hue, IKEA Tradfri, Xiaomi Aqara, Ledvance Smart, Silvercrest, Schneider Electric, Nous, and SONOFF.

Actual device compatibility depends on the supported device list of each platform.

- 1、ZHA: <https://www.home-assistant.io/integrations/zha>
- 2、Zigbee2MQTT: <https://www.zigbee2mqtt.io/supported-devices/>
- 3、ioBroker: <https://github.com/Jey-Cee/ioBroker.deconz>
- 4、Domoticz: <https://github.com/Smanar/Domoticz-deCONZ>
- 5、Openhab: <https://www.openhab.org/addons/bindings/deconz/>
- 6、Jeedom: <https://compatibility.jeedom.com/index.php?v=d&p=home&protocol=Zigbee>


For more information on supported devices, please refer to:

<https://zigbee.blakadder.com/>



Wide Range of Supported Devices

Dongle Plus can be used as a Zigbee 3.0 gateway in open-source automation platforms to manage various sub-devices from various brands. The supported devices depend on the platforms.



* Max direct children: 32.
Max children: no limit on firmware, depends on platforms.

2. Getting Started



2.1 Overview

This article serves as a quick-start guide for the SONOFF Dongle, covering topics such as connecting to operating systems, integrating with open-source platforms, and firmware updates.

2.2 Step 1: Connecting to the Operating System

Operating System	Plug & Play	Guide Link
Windows	No. Driver installation required	ZBDongle-E , ZBDongle-P , Dongle-LMG21 , Dongle-PMG24
Linux/Ubuntu	Yes	/
Raspberry Pi OS	Yes	/
Mac OS	No. Driver installation required	ZBDongle-E , ZBDongle-P , Dongle-LMG21 , Dongle-PMG24
Virtual Machine	It depends on the host where the virtual machine is deployed	ZBDongle-E , ZBDongle-P , Dongle-LMG21 , Dongle-PMG24

Please connect the device to the USB port of the host, and install the appropriate driver according to the host operating system.

Note: This tutorial is compatible with the SONOFF ZBDongle-E

2.2.1 Connecting to Windows

2.1.1.1 Step 1: Install Driver

- Install the CP210x Driver: [CP210x_VCP_Windows](#)
- Or you can download and install the driver via the official Silicon Labs website: [Silicon Labs CP210x Driver Download](#)

Download and Install VCP Drivers

Downloads for Windows, Macintosh, Linux and Android below.

*Note: The Linux 3.x.x and 4.x.x version of the driver is maintained in the current Linux 3.x.x and 4.x.x tree at [www.kernel.org](#).

Software Downloads

Software (11)

Software · 11

CP210x Universal Windows Driver	v11.4.0 12/18/2024
CP210x VCP Mac OSX Driver	v6.0.2 10/27/2021
CP210x VCP Windows	v6.7 9/4/2020
CP210x Windows Drivers	v6.7.6 9/4/2020
CP210x Windows Drivers with Serial Enumerator	v6.7.6 9/4/2020

[Show 6 more Software](#)

Legacy OS Software Versions

Driver Package download links and support information

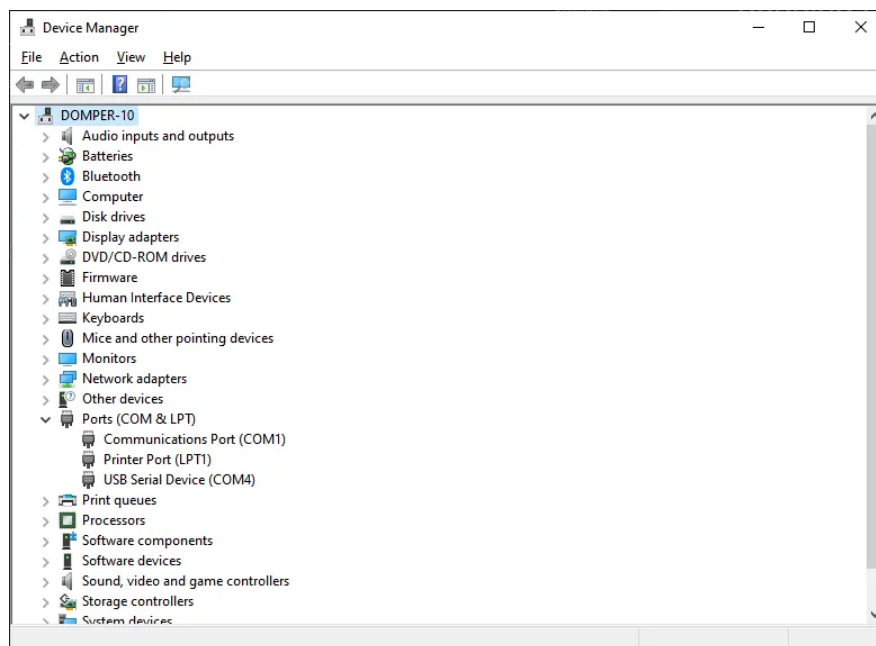
Serial Enumeration Driver

What is the serial enumeration driver and why would I need it?

Note: Products purchased before 2024 use the CH9102 serial chip. Normally, the driver is pre-installed in the operating system. If the device is not recognized, please download and install the driver manually: [CH343SER](#)

2.1.1.2 Step 2: Confirm that the device is recognised

After the driver is successfully installed, open Device Manager and expand Ports (COM & LPT). The corresponding USB device will be recognized.



As shown above, the serial port for the device is: COM4

2.2.2 Connecting to Linux

Most recent versions of Ubuntu or other Linux distributions already include the CP210x driver by default, so no additional installation is required.

After connecting the ZBDongle device, you can check if it was recognized by entering the following command in the terminal:

```
Plain Text
$ sudo dmesg
...
[ 534.580638] usb 3-8: new full-speed USB device number 2 using xhci_hcd
[ 534.708589] usb 3-8: New USB device found, idVendor=10c4, idProduct=ea60,
bcdDevice= 1.00
[ 534.708604] usb 3-8: New USB device strings: Mfr=1, Product=2,
SerialNumber=3
[ 534.708611] usb 3-8: Product: Sonoff Zigbee 3.0 USB Dongle Plus V2
[ 534.708616] usb 3-8: Manufacturer: Itead
[ 534.708620] usb 3-8: SerialNumber: 76536147c914ef11950378b8bf9df066
[ 534.736381] usbcore: registered new interface driver usbserial_generic
[ 534.736392] usbserial: USB Serial support registered for generic
[ 534.739907] usbcore: registered new interface driver cp210x
[ 534.739925] usbserial: USB Serial support registered for cp210x
[ 534.739948] cp210x 3-8:1.0: cp210x converter detected
[ 534.741643] usb 3-8: cp210x converter now attached to ttyUSB0
```

Checking the Serial Port Path

To obtain the serial port path of the connected device, use the following command:

```
Plain Text
ls -l /dev/serial/by-id
```

Example output:

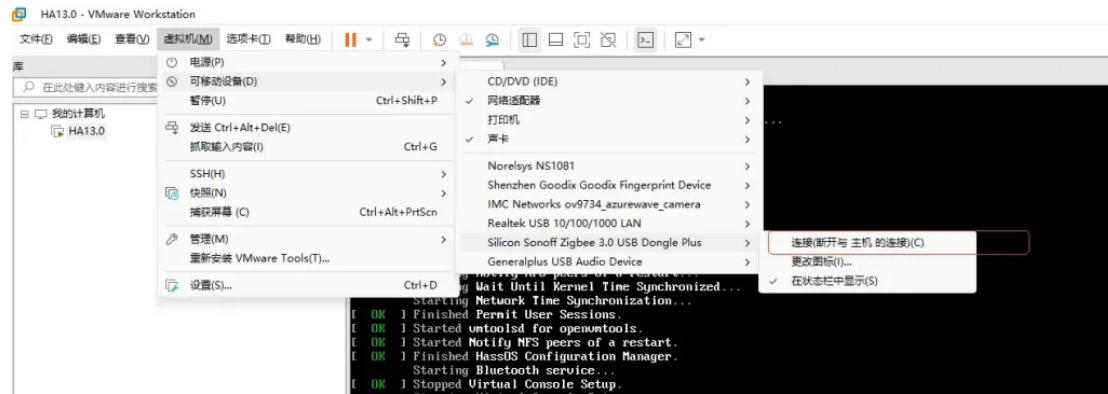
```
Plain Text
coolkit@coolkit-All-Series:~$ ls -l /dev/serial/by-id
total 0
lrwxrwxrwx 1 root root 13  3月 31 18:09 usb-
Itead_Sonoff_Zigbee_3.0_USB_Dongle_Plus_V2_76536147c914ef11950378b8bf
9df066-if00-port0 -> ../../ttyUSB0
```

The corresponding serial port path is:

```
Plain Text
/dev/ttyUSB0
```

2.2.3 Connecting to Virtual Machine

If Home Assistant is running on a virtual machine, in addition to installing the appropriate driver for the operating system, make sure to connect the device to the virtual machine. VMware is used as an example here.

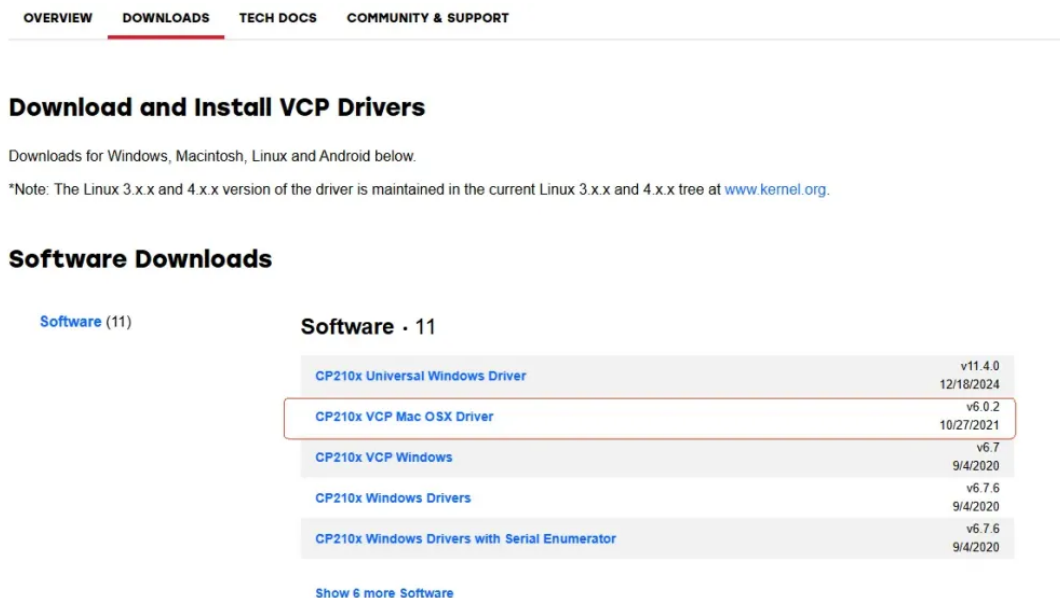


2.2.4 Connecting to macOS

2.2.4.1 Step 1: Install Driver

Install the CP20x driver: [Mac_OSX_VCP_Driver](#)

or download from: [Silicon Labs CP210x Driver Download](#)

A screenshot of the Silicon Labs website's 'Downloads' page. The page has a navigation bar with 'OVERVIEW', 'DOWNLOADS', 'TECH DOCS', and 'COMMUNITY & SUPPORT'. The 'DOWNLOADS' section is active. Below the navigation, there is a heading 'Download and Install VCP Drivers' and a note about Linux versions. A 'Software Downloads' section features a table with 11 entries. The 'CP210x VCP Mac OSX Driver' is highlighted with a red box.

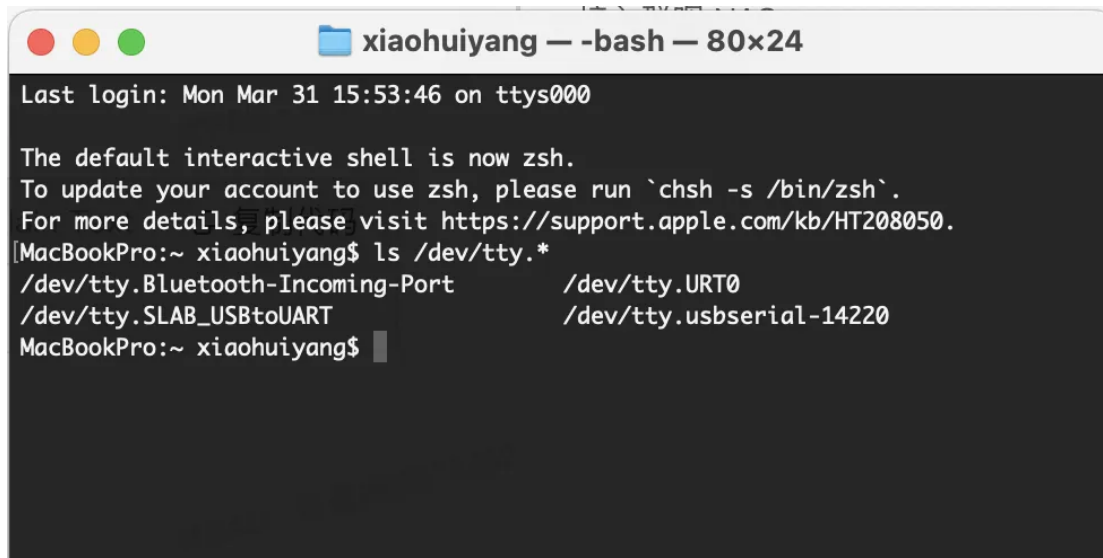
Software	Version
CP210x Universal Windows Driver	v11.4.0 12/18/2024
CP210x VCP Mac OSX Driver	v6.0.2 10/27/2021
CP210x VCP Windows	v6.7 9/4/2020
CP210x Windows Drivers	v6.7.6 9/4/2020
CP210x Windows Drivers with Serial Enumerator	v6.7.6 9/4/2020

2.2.4.2 Step 2: Confirm that the device is recognised

After successful installation, run the following command in Terminal:

```
Plain Text  
ls /dev/tty.*
```

If recognized, the information will be returned after Enter:



```
xiaohuiyang — -bash — 80x24
Last login: Mon Mar 31 15:53:46 on ttys000

The default interactive shell is now zsh.
To update your account to use zsh, please run `chsh -s /bin/zsh`.
For more details, please visit https://support.apple.com/kb/HT208050.
[MacBookPro:~ xiaohuiyang$ ls /dev/tty.*
/dev/tty.Bluetooth-Incoming-Port      /dev/tty.URT0
/dev/tty.SLAB_USBtoUART              /dev/tty.usbserial-14220
MacBookPro:~ xiaohuiyang$
```

The serial port is:

```
Plain Text
/dev/tty.usbserial-14220
```

2.2.5 Connecting to Raspberry Pi OS

Most Raspberry Pi OS typically includes the CP210x driver by default. No installation is required.

After connecting the ZBDongle device, you can check if it was recognized by entering the following command in the terminal:

```
Plain Text
$ sudo dmesg
...
[ 534.580638] usb 3-8: new full-speed USB device number 2 using xhci_hcd
[ 534.708589] usb 3-8: New USB device found, idVendor=10c4, idProduct=ea60,
bcdDevice= 1.00
[ 534.708604] usb 3-8: New USB device strings: Mfr=1, Product=2,
SerialNumber=3
[ 534.708611] usb 3-8: Product: Sonoff Zigbee 3.0 USB Dongle Plus V2
[ 534.708616] usb 3-8: Manufacturer: Itead
[ 534.708620] usb 3-8: SerialNumber: 76536147c914ef11950378b8bf9df066
[ 534.736381] usbcore: registered new interface driver usbserial_generic
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[ 534.739925] usbserial: USB Serial support registered for cp210x
[ 534.739948] cp210x 3-8:1.0: cp210x converter detected
```

```
[ 534.741643] usb 3-8: cp210x converter now attached to ttyUSB0
```

Checking the Serial Port Path

To obtain the serial port path of the connected device, use the following command:

```
Plain Text  
ls -l /dev/serial/by-id
```

Example output:

```
Plain Text  
coolkit@coolkit-All-Series:~$ ls -l /dev/serial/by-id  
total 0  
lrwxrwxrwx 1 root root 13 3月 31 18:09 usb-  
lthead_Sonoff_Zigbee_3.0_USB_Dongle_Plus_V2_76536147c914ef11950378b8bf  
9df066-if00-port0 -> ../../ttyUSB0
```

The corresponding serial port path is:

```
Plain Text  
/dev/ttyUSB0
```

2.3 Step 2: Connecting to Open-source Platforms

Open-source Platforms	Guide Link
Home Assistant	ZBDongle-E , ZBDongle-P , Dongle-LMG21 , Dongle-PMG24
Zigbee2MQTT	ZBDongle-E , ZBDongle-P , Dongle-LMG21 , Dongle-PMG24
OpenHab	ZBDongle-E , Dongle-LMG21 , Dongle-PMG24
ioBroker	ZBDongle-E , ZBDongle-P , Dongle-LMG21 , Dongle-PMG24
Domoticz	ZBDongle-E, ZBDongle-P, Dongle-PMG24
Jeedom	ZBDongle-E, ZBDongle-P, Dongle-PMG24

2.3.1 Connecting to Home Assistant via ZHA

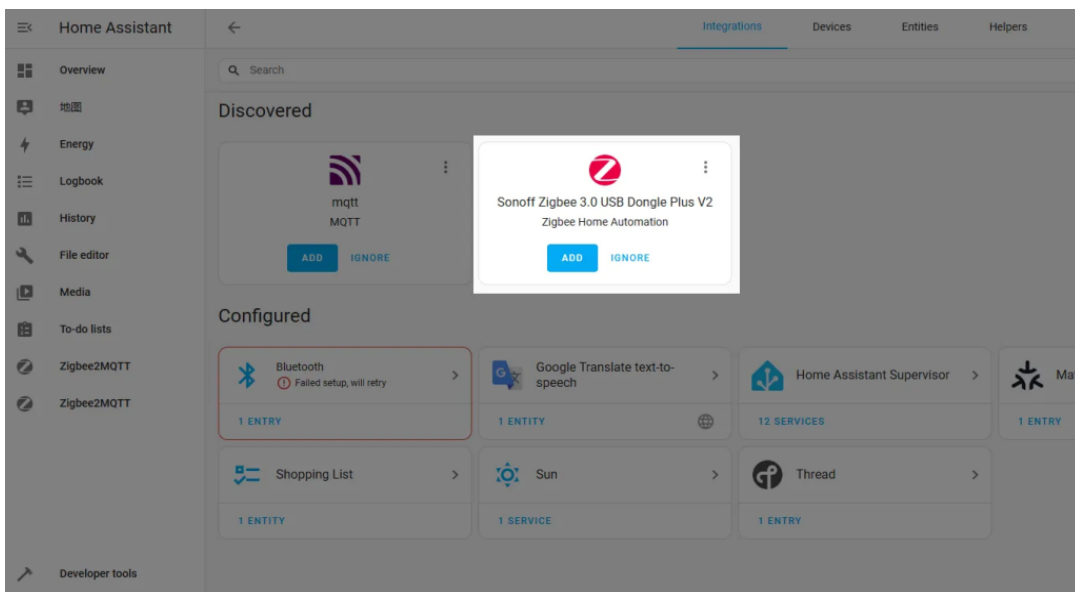
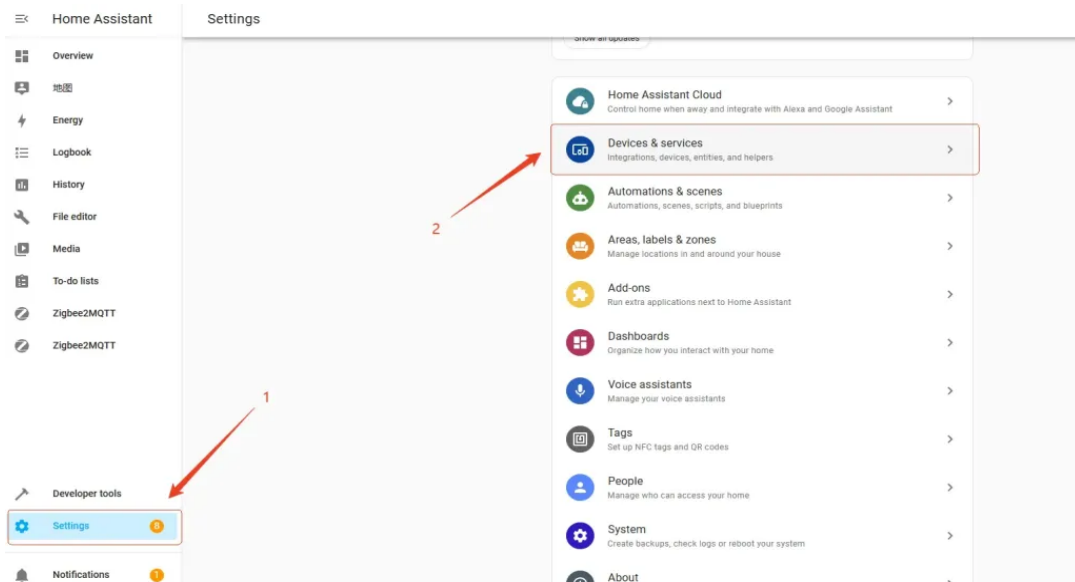
This guide is based on Home Assistant. For more details, please visit: [Home Assistant – ZHA](#)

2.3.1.1 Preparation

Before getting started, ensure that Home Assistant is installed and the ZBDongle is connected to the host's USB port. If not yet installed, please follow the [Home Assistant Installation Guide](#).

2.3.1.2 Step 1: Add Integration

In most cases, once the device is connected to the **operating system**, it will be automatically discovered by Home Assistant. Go to **Settings > Devices & Services**, and click “**ADD**” to start the configuration.



Auto Discovery Name

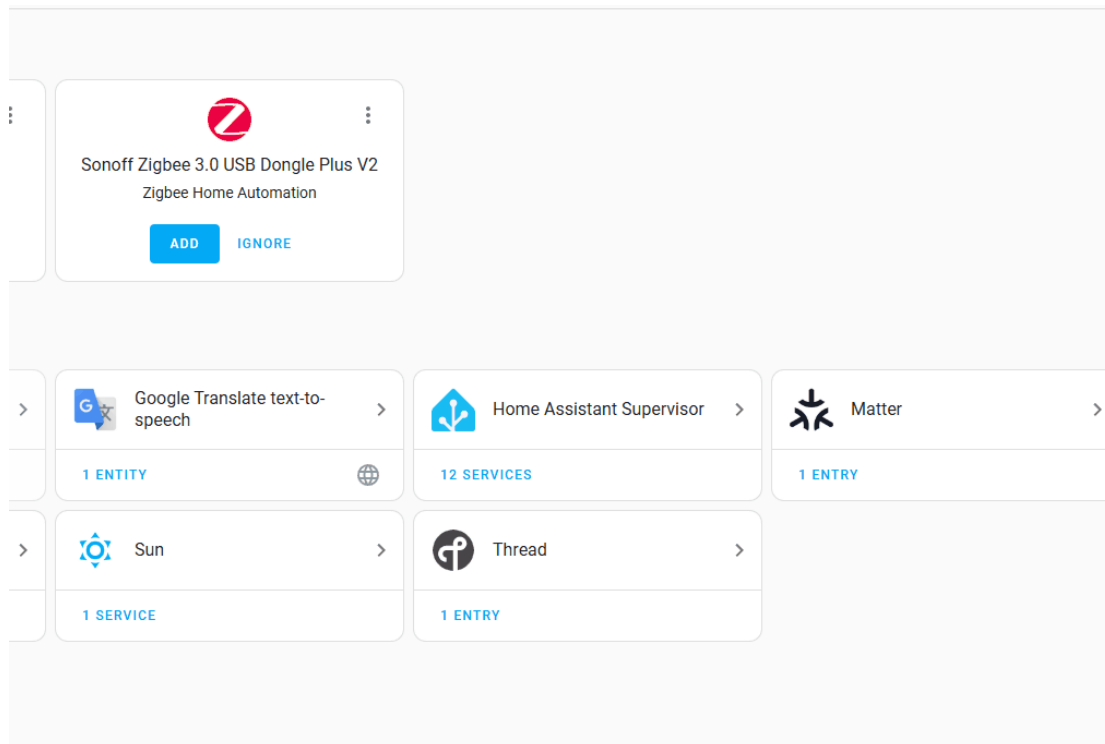
Product	USB Auto Discovery
ZBDongle-E	SONOFF Zigbee 3.0 USB Dongle Plus V2

2.3.1.3 Step 2: Configure the ZBDongle

After clicking the “**ADD**” button, follow the prompts to configure the ZBDongle. You will need to select a network initialization method:

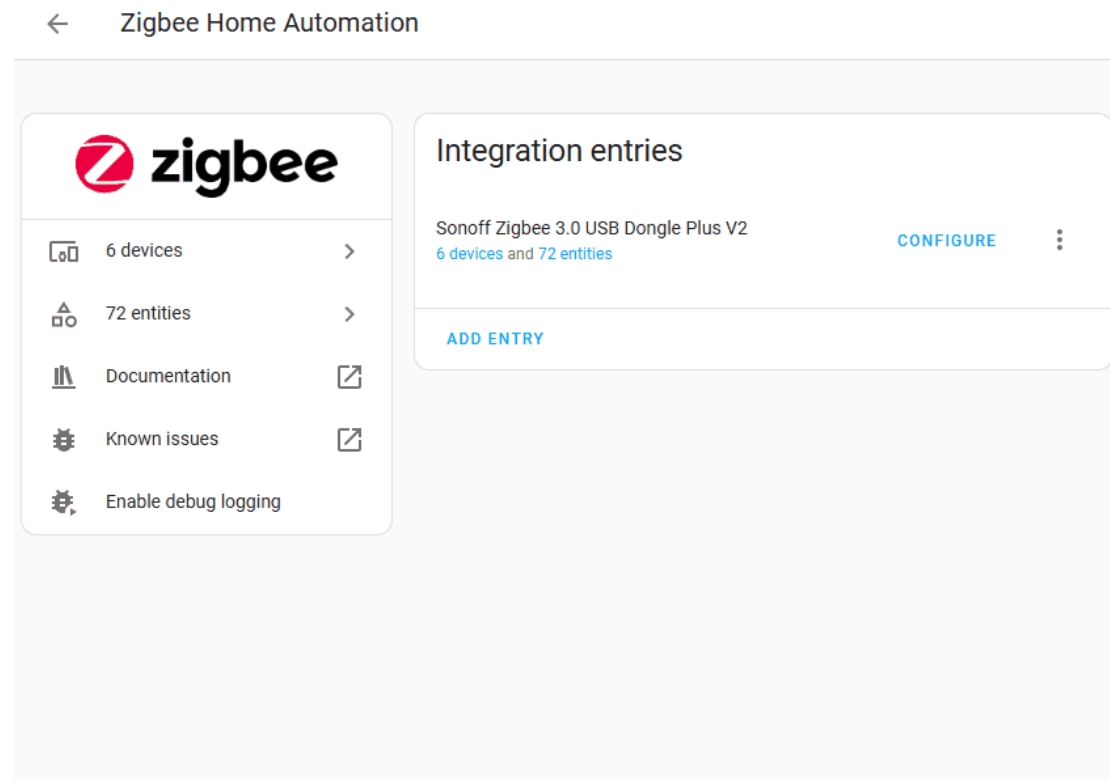
- 1、 **Restore from previous network backup:** Used when replacing the Zigbee coordinator. Restores based on the last available network backup.
- 2、 **Keep existing network settings:** Used when the Zigbee coordinator remains the same and ZHA integration is re-added. Generally not recommended.
- 3、 **Manually upload network backup:** Used when manually migrating network data during HA migration.
- 4、 **Erase and create a new network:** Used to create a new Zigbee network by erasing existing network data.

1.



2.3.1.4 Step 3: Add a Zigbee Sub-device

Put the Zigbee sub-device into pairing mode. Then go to the **ZHA Integration > Devices** page, click “**Add Device**“, and the integration will begin scanning and automatically adding the Zigbee sub-device.



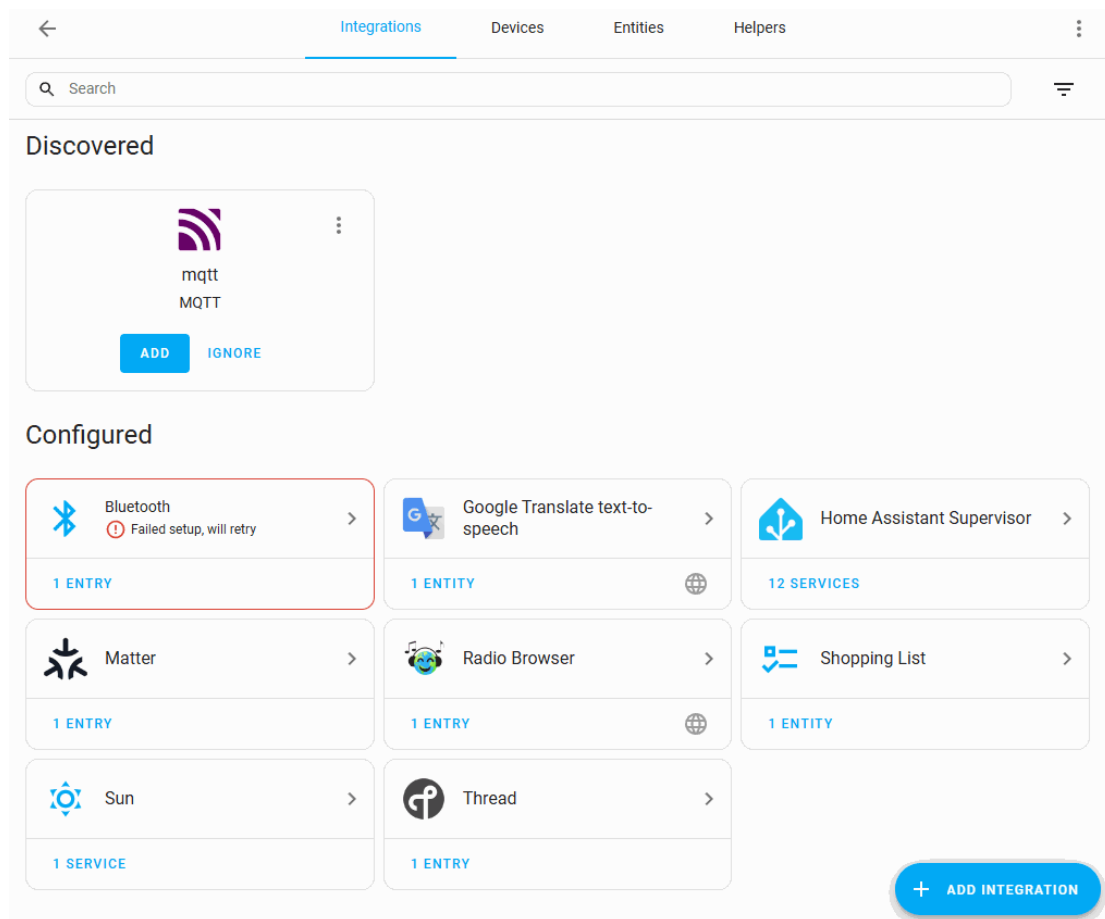
Plain Text

Note: The name will vary depending on the product added.

2.3.1.5 Troubleshooting

If the device is not automatically discovered due to special circumstances, you can manually add the ZHA integration:

Settings → **Devices & Services** → **Add Integration** → **Search for ZHA** → **Manually select device path** → **Submit**



2.3.2 Connecting to Home Assistant via Z2M Add-on

This guide is based on the GitHub project:

<https://github.com/zigbee2mqtt/hassio-zigbee2mqtt#installation>

2.3.2.1 Preparation

Before getting started, ensure that Home Assistant is installed and the ZBDongle is connected to the host's USB port. If not yet installed, please follow the [Home Assistant Installation Guide](#).

2.3.2.2 Step 1: Install Add-ons

When connecting HA through the Zigbee2MQTT Add-on, you need to install two add-ons:

- 1、 **Mosquitto broker (MQTT Broker)**
- 2、 **Zigbee2MQTT**

2.3.2.2.1 Install MQTT Broker

Go to [Settings](#) → [Add-ons](#) → [Add-on store](#) and install the [Mosquitto broker](#) add-on, then start it.


← Info Documentation

Mosquitto broker 6.5.0

[Changelog](#)

7 Rating Auth Signed

An Open Source MQTT broker.
Visit the [Mosquitto broker](#) page for more details.



INSTALL

Home Assistant Add-on: Mosquitto broker

MQTT broker for Home Assistant.

aarch64 yes amd64 yes armhf yes armv7 yes i386 yes

About

You can use this add-on to install Eclipse Mosquitto, which is an open-source (EPL/EDL licensed) message broker that implements the MQTT protocol. Mosquitto is lightweight and is suitable for use on all devices from low power single board computers to full servers. For more information, please see [mosquitto](#).

2.3.2.2.2 Install Zigbee2MQTT

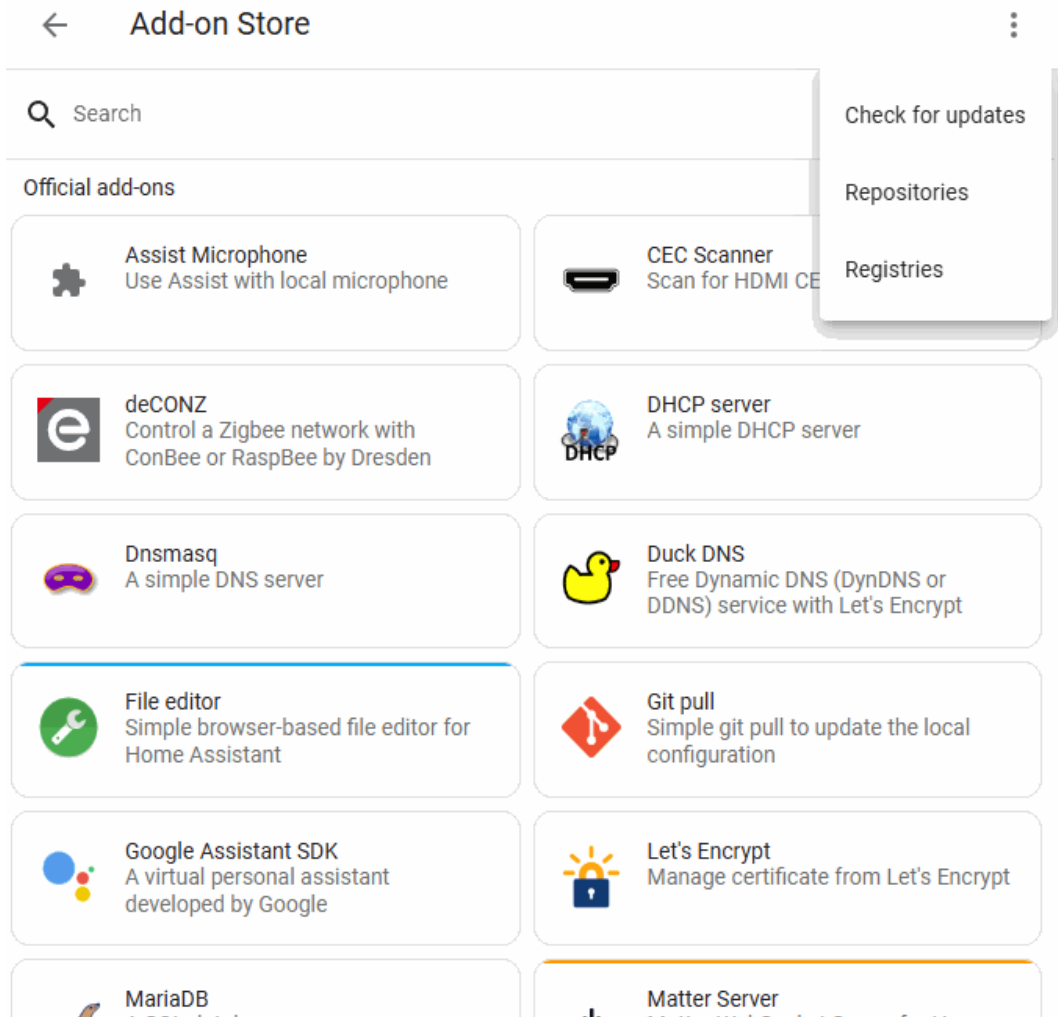
1、Add Repository

Go back to the Add-on store, click” : “→ “**Repositories**“, fill in

<https://github.com/zigbee2mqtt/hassio-zigbee2mqtt>

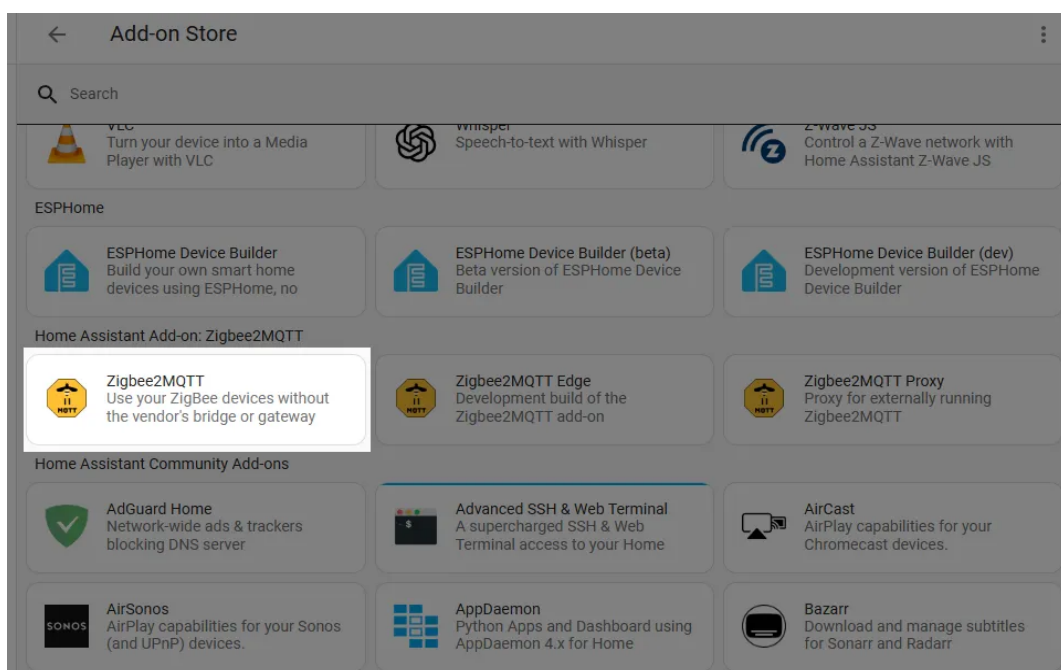
and click “**Add**” → “**Close**” or click the “**Add repository**” button below, click “**Add**” → “**Close**“

[Installation Link](#)



2、 Install Zigbee2MQTT

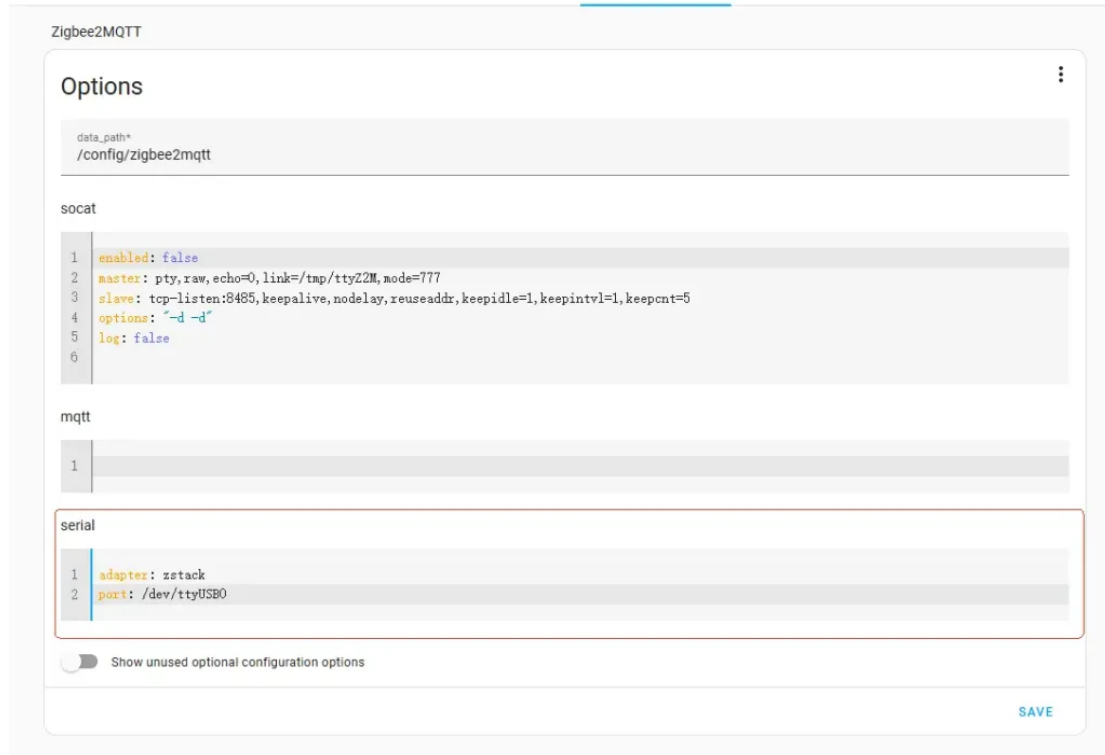
Return to the [store list](#), find Zigbee2MQTT, and proceed with installation.



2.3.2.3 Step 2: Configure Zigbee2MQTT

Open the **Zigbee2MQTT** add-on → **Configuration** page.

You need to configure the device's adapter type and serial port path under serial.



The screenshot shows the configuration interface for Zigbee2MQTT. The 'serial' section is highlighted with a red border. The configuration is as follows:

```
data_path*  
/config/zigbee2mqtt  
  
socat  
1 enabled: false  
2 master: pty, raw, echo=0, link=/tmp/tty2M, mode=777  
3 slave: tcp-listen:8485, keepalive, nodelay, reuseaddr, keepidle=1, keepintvl=1, keepcnt=5  
4 options: "-d -d"  
5 log: false  
6  
  
mqtt  
1  
  
serial  
1 adapter: zstack  
2 port: /dev/ttyUSB0  
  
 Show unused optional configuration options  
  
SAVE
```

The following format:

```
Plain Text  
adapter: Adapter Type  
port: ZBDongle Serial Port Path
```

Example Configuration For ZBDongle-E

```
Plain Text  
adapter: ember  
port: /dev/ttyUSB0
```

The serial port path may vary depending on the host system. On Linux, you can find the serial path by running:

```
Plain Text  
ls -l /dev/serial/by-id
```

Example output:

Plain Text

```
coolkit@coolkit-All-Series:~$ ls -l /dev/serial/by-id
total 0
lrwxrwxrwx 1 root root 13 3月 31 18:09 usb-
lthead_Sonoff_Zigbee_3.0_USB_Dongle_Plus_V2_76536147c914ef11950378b8bf
9df066-if00-port0 -> ../../ttyUSB0
```

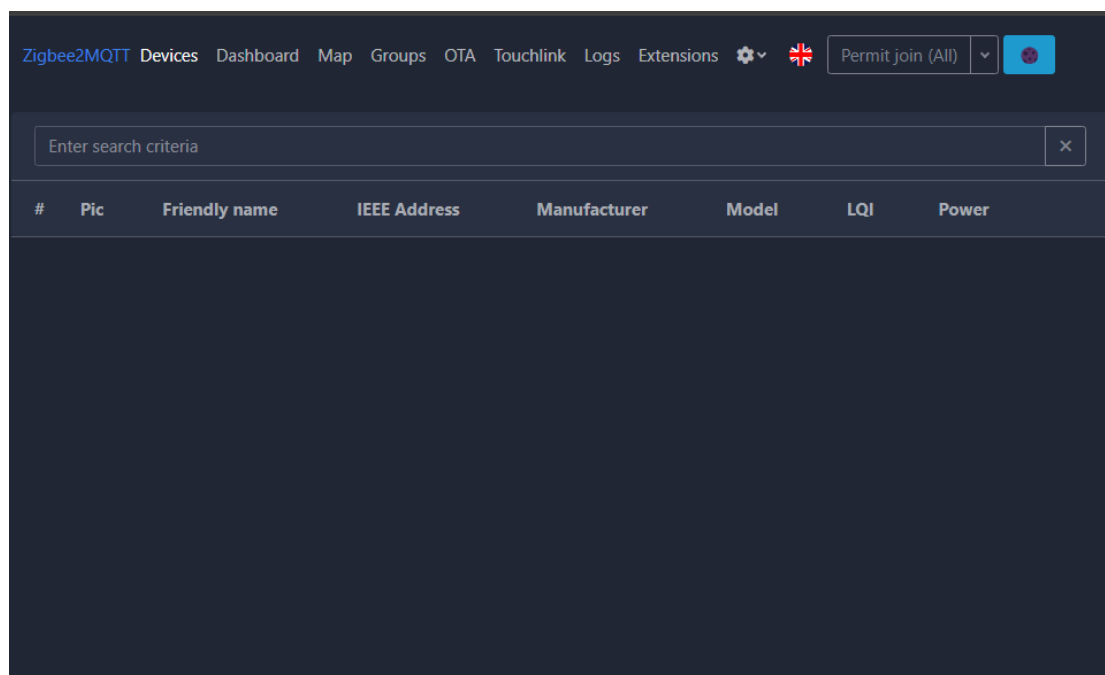
The serial port path in this case is:

Plain Text

```
/dev/ttyUSB0
```

For other operating systems, please refer to the [respective connection instructions](#).

After completing the configuration, start the **Zigbee2MQTT** add-on. Wait for about two minutes, then you can click to enter the **Web UI Console** to add and manage devices.



2.3.3 Connecting to Zigbee2MQTT

This guide follows the official Zigbee documentation. For more operations, please visit [Zigbee2MQTT](#).

2.3.3.1 Preparation

Before getting started, ensure that Zigbee2MQTT is installed and that the ZBDongle is connected to the host's USB port.

If Zigbee2MQTT and Mosquitto MQTT Broker have not been installed yet, please refer to the [Zigbee2MQTT Installation Guide](#) and the [Mosquitto Installation Guide](#).

2.3.3.2 Step 1: Start Zigbee2MQTT

It is recommended that Zigbee2MQTT be updated to version **2.2.0**, which supports automatic discovery and configuration of ZBDongle-E.

Run the following commands to start Zigbee2MQTT:

```
Plain Text
cd /opt/zigbee2mqtt
sudo pnpm start
```

If started successfully, you will see output similar to the following, indicating that Zigbee2MQTT has been launched correctly:

```
Plain Text
[2025-04-02 09:44:12] info:   z2m: Logging to console, file (filename: log.log)
[2025-04-02 09:44:12] info:   z2m: Starting Zigbee2MQTT version 2.2.0 (commit
#c5c07e7d)
[2025-04-02 09:44:12] info:   z2m: Starting zigbee-herdsman (3.4.11)
[2025-04-02 09:44:12] info:   zh:adapter:discovery: Matched adapter:
{"path":"/dev/ttyUSB0","manufacturer":"Itead","serialNumber":"76536147c914ef119
50378b8bf9df066","pnpld":"usb-
Itead_Sonoff_Zigbee_3.0_USB_Dongle_Plus_V2_76536147c914ef11950378b8bf
9df066-if00-port0","vendorId":"10c4","productId":"ea60"} => ember:
path=/dev/ttyUSB0, score=4
...
[2025-04-02 09:44:15] info:   z2m: zigbee-herdsman started (restored)
[2025-04-02 09:44:15] info:   z2m: Coordinator firmware version:
'{"meta":{"build":0,"ezsp":13,"major":7,"minor":4,"patch":4,"revision":"7.4.4
[GA]","special":0,"type":170},"type":"EmberZNet"}'
[2025-04-02 09:44:15] info:   z2m: 0x00124b00258a5e02
(0x00124b00258a5e02): S26R2ZB - SONOFF Zigbee smart plug (Router)
[2025-04-02 09:44:15] info:   z2m: Currently 1 devices are joined.
[2025-04-02 09:44:15] info:   z2m: Connecting to MQTT server at mqtt://localhost
[2025-04-02 09:44:15] info:   z2m: Connected to MQTT server
[2025-04-02 09:44:15] info:   z2m:mqtt: MQTT publish: topic
'zigbee2mqtt/bridge/state', payload '{"state":"online"}'
[2025-04-02 09:44:15] info:   z2m: Started frontend on port 8081
[2025-04-02 09:44:15] info:   z2m:mqtt: MQTT publish: topic
'zigbee2mqtt/0x00124b00258a5e02', payload '{"state":"OFF"}'
[2025-04-02 09:44:15] info:   z2m: Zigbee2MQTT started!
```

(Optional) Manually Configure Zigbee2MQTT

This section is only required if:

- Your Zigbee2MQTT version is **below 2.2.0**, or
- You encounter errors when starting Zigbee2MQTT.

Normally, running Zigbee2MQTT will automatically detect and configure the dongle without manual intervention.

To manually configure, modify the configuration.yaml file. Example steps on Linux:

Plain Text

```
cp /opt/zigbee2mqtt/data/configuration.example.yaml
/opt/zigbee2mqtt/data/configuration.yaml
nano /opt/zigbee2mqtt/data/configuration.yaml
```

The first command backs up the original configuration file. The second command opens configuration.yaml for editing. Modify the following sections:

Plain Text

```
# MQTT settings
mqtt:
  base_topic: zigbee2mqtt
  server: 'mqtt://localhost'

frontend:
  enabled: true      //Enable frontend
# adapter settings
serial:
  port: /dev/ttyUSB0 //Replace with the serial port path obtained in Step 1
  adapter: ember

//For the ZBDongle-P, the adapter is zstack.
//For the ZBDongle-E, the firmware version below 7.4 uses ezsp, while firmware
version 7.4 and above uses ember.
```

After editing, press “CTRL + O” to **save** and “CTRL + X” to **exit**.

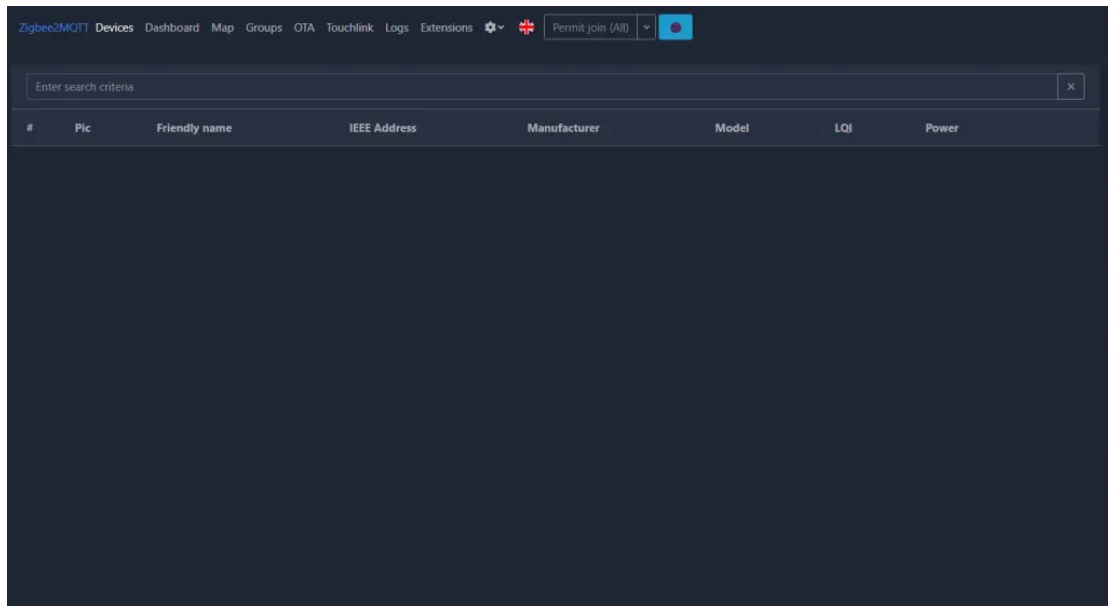
Then, **restart** Zigbee2MQTT:

Plain Text

```
cd /opt/zigbee2mqtt
sudo pnpm start
```

2.3.3.3 Step 2: Access the Frontend Console

You can access the Zigbee2MQTT frontend via:

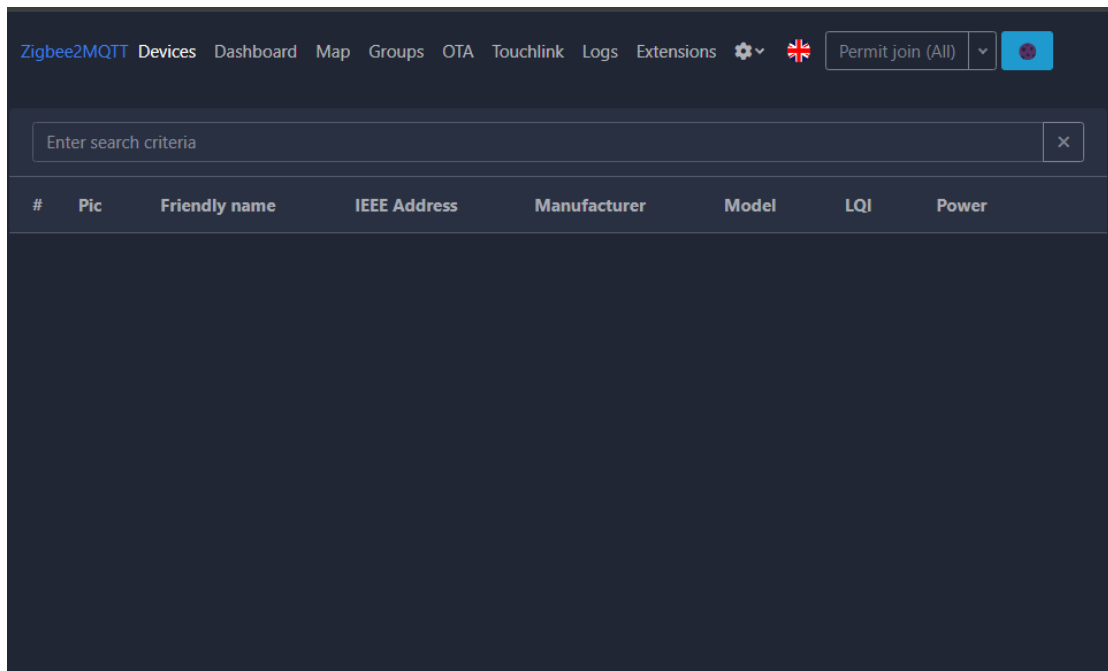


2.3.3.4 Step 3: Add a Zigbee Sub-device

Put your Zigbee device into pairing mode, then click “**Permit join (All)**” in the Zigbee2MQTT frontend.

The device will be scanned and added automatically.

The Zigbee2MQTT Supported Devices List: [Zigbee2MQTT Support device](#)



2.3.4 Connecting to OpenHab

This guide is based on OpenHab. For more details, please visit [OpenHab – Zigbee Bindings](#).

Note: ZBDongle-P (TI CC2652P Chip) is currently not supported. For detailed progress, please refer to [GitHub](#).

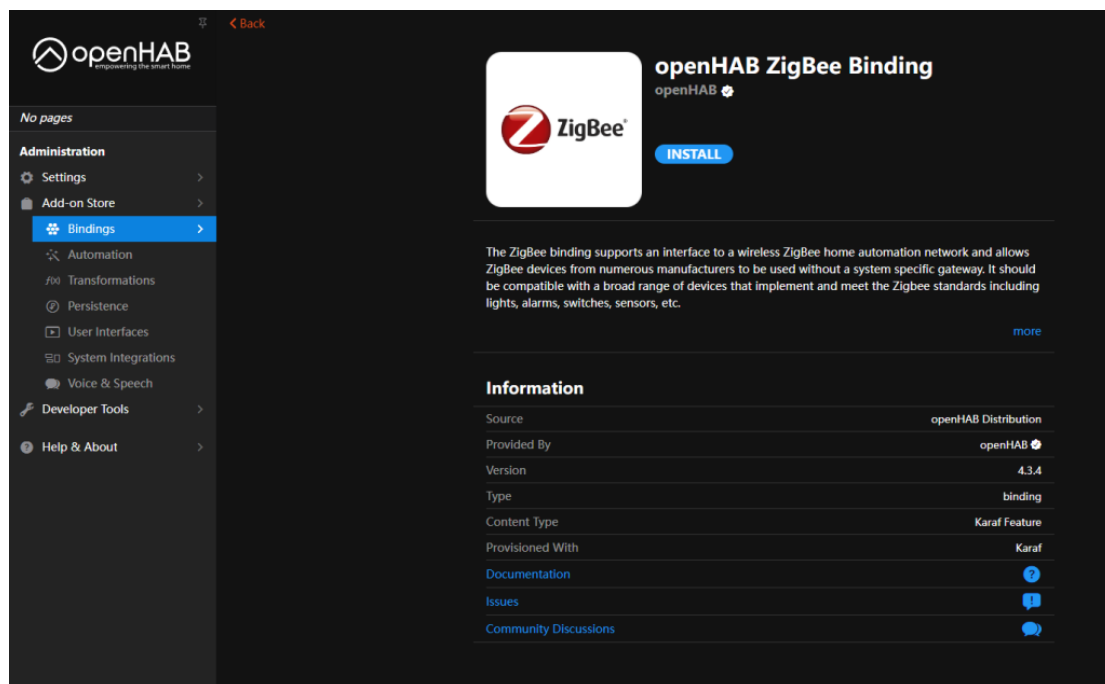
2.3.4.1 Preparation

Before getting started, ensure that Zigbee2MQTT is installed and that the ZBDongle is connected to the host's USB port.

If OpenHab have not been installed yet, please refer to the [OpenHab installation guide](#) for setup instructions.

2.3.4.2 Step 1: Install Zigbee Binding

Go to the Add-on Store, search for Zigbee, and install the **openHAB ZigBee Binding**.



2.3.4.3 Step 2: Add Things

Go to the Things page, click the “**Add**” icon, and select Ember Coordinator. Then configure the following parameters:

Plain Text

Port: Select the usb-Itead-Sonoff-Zigbee-3.0-USB-Dongle-V2 device

Flow Control: Select None

Keep other settings as default. After configuration, click “**Create Things**”. Once the Thing’s status turns green (ONLINE), the setup is complete

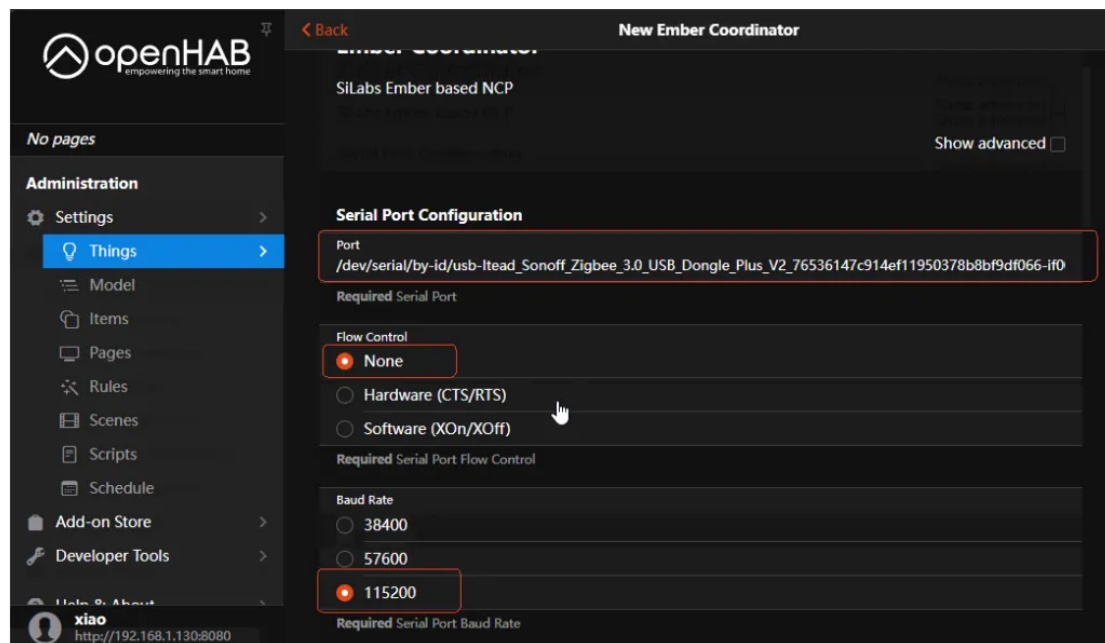
Add Things



The screenshot shows the openHAB interface for the ZigBee Binding. The left sidebar contains the 'Administration' menu with 'Bindings' selected. The main content area features the ZigBee logo, a 'REMOVE' button, and a description: 'The ZigBee binding supports an interface to a wireless ZigBee home automation network and allows ZigBee devices from numerous manufacturers to be used without a system specific gateway. It should be compatible with a broad range of devices that implement and meet the Zigbee standards including lights, alarms, switches, sensors, etc.' Below this is an 'Information' table:

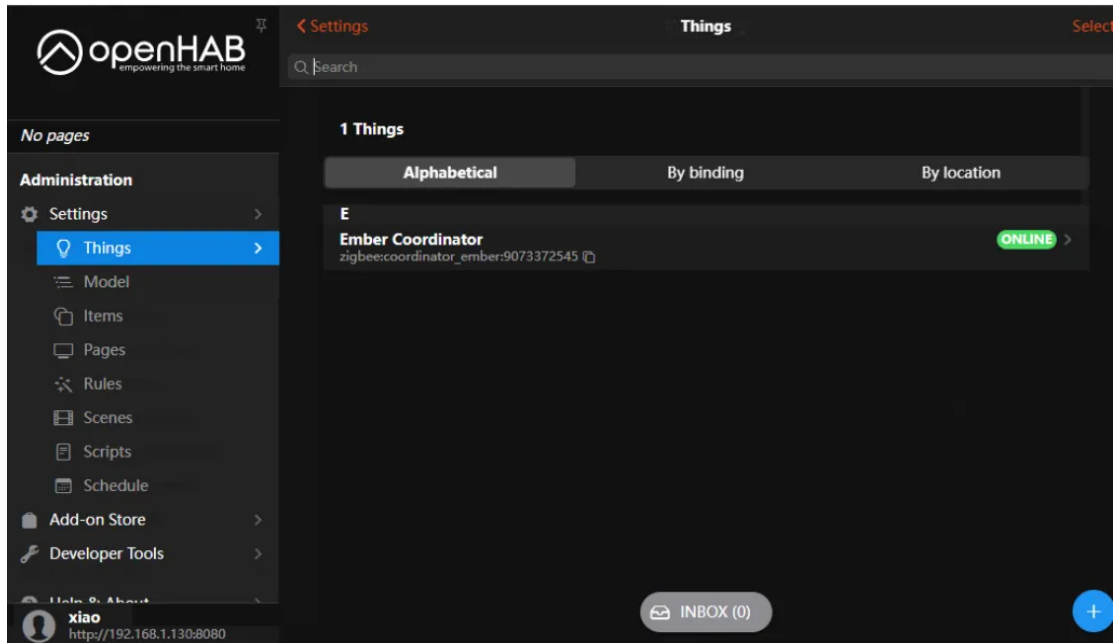
Information	
Source	openHAB Distribution
Provided By	openHAB
Version	4.3.4

Configuration



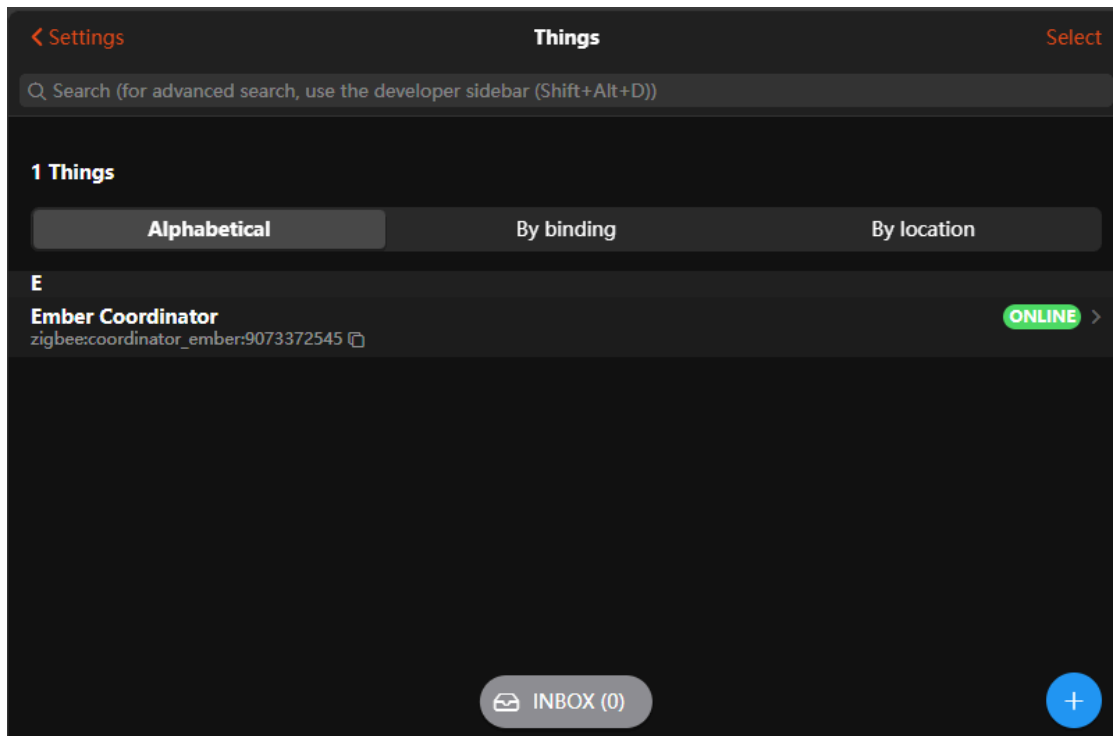
The screenshot shows the 'New Ember Coordinator' configuration page in openHAB. The left sidebar has 'Things' selected. The main configuration area includes a 'Serial Port Configuration' section with the following settings:

- Port: `/dev/serial/by-id/usb-ltead_Sonoff_Zigbee_3.0_USB_Dongle_Plus_V2_76536147c914ef11950378b8bf9df066-ff0`
- Flow Control: None, Hardware (CTS/RTS), Software (XOn/XOff)
- Baud Rate: 38400, 57600, 115200



2.3.4.4 Step 3: Add a Zigbee Sub-device

Put your Zigbee device into pairing mode. Then, click the “**Add**” button at the bottom right of the Things page, select Zigbee Binding, and click “**SCAN**” to start scanning and adding Zigbee devices.



Once added, the device can be configured as a Switch and controlled.

2.3.5 Connecting to ioBroker

This guide is based on ioBroker. For more details, please visit [ioBroker – Zigbee](#).

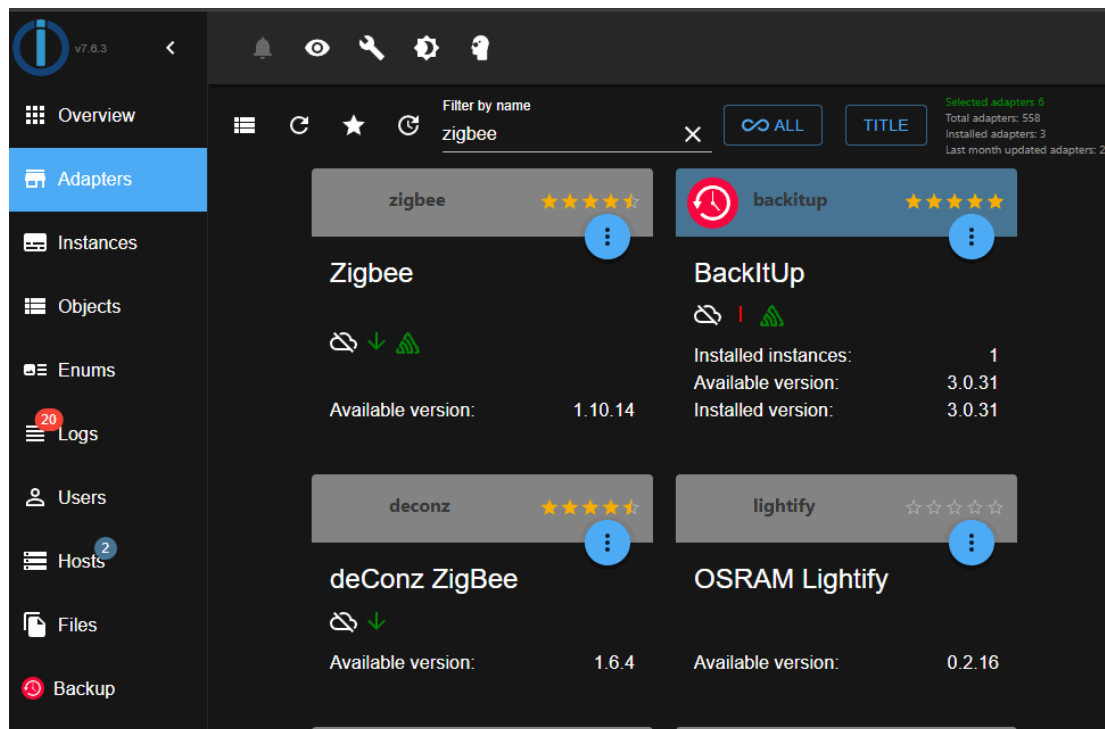
2.3.5.1 Preparation

Before getting started, make sure that loBroker is installed and that the ZBDongle is plugged into the host's USB port.

If loBroker has not yet been installed, please refer to the [loBroker installation guide](#) for setup instructions.

2.3.5.2 Step 1: Add Adapter

After logging into loBroker, go to **Adapters**, search for **zigbee**, and install the first **Zigbee adapter** listed.



2.3.5.3 Step 2: Configure the Adapter

Go to Instances, open the settings for the Zigbee adapter, and configure the serial port path and device type:

For ZBDongle-E、Dongle-PMG24、Dongle-LMG21

Plain Text

```
COM port name: /dev/ttyUSB0 //configure according to the actual serial path  
Type: SL-EFR32(EMBER) FW 7.4.x.x
```

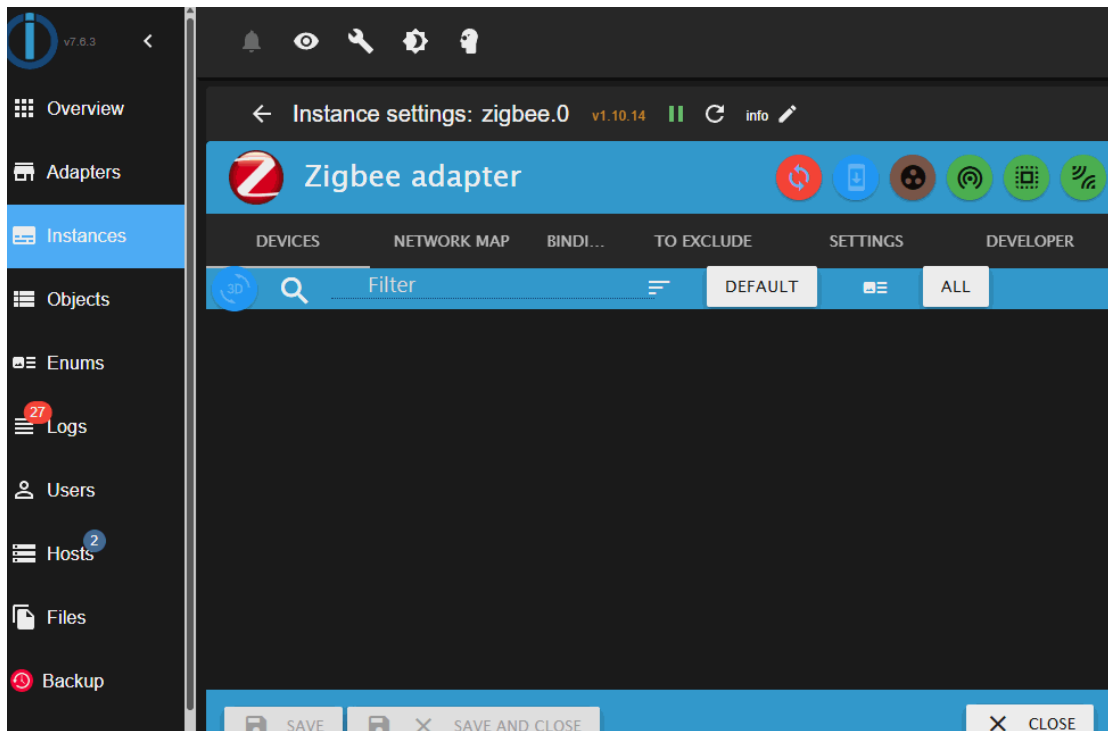
For ZBDongle-P(SONOFF Zigbee 3.0 USB Dongle Plus)

Plain Text

```
COM port name: /dev/ttyUSB0 //configure according to the actual serial path  
Type: TIZ-Stack/CCxxox
```

After completing the configuration, click **“Save”**.

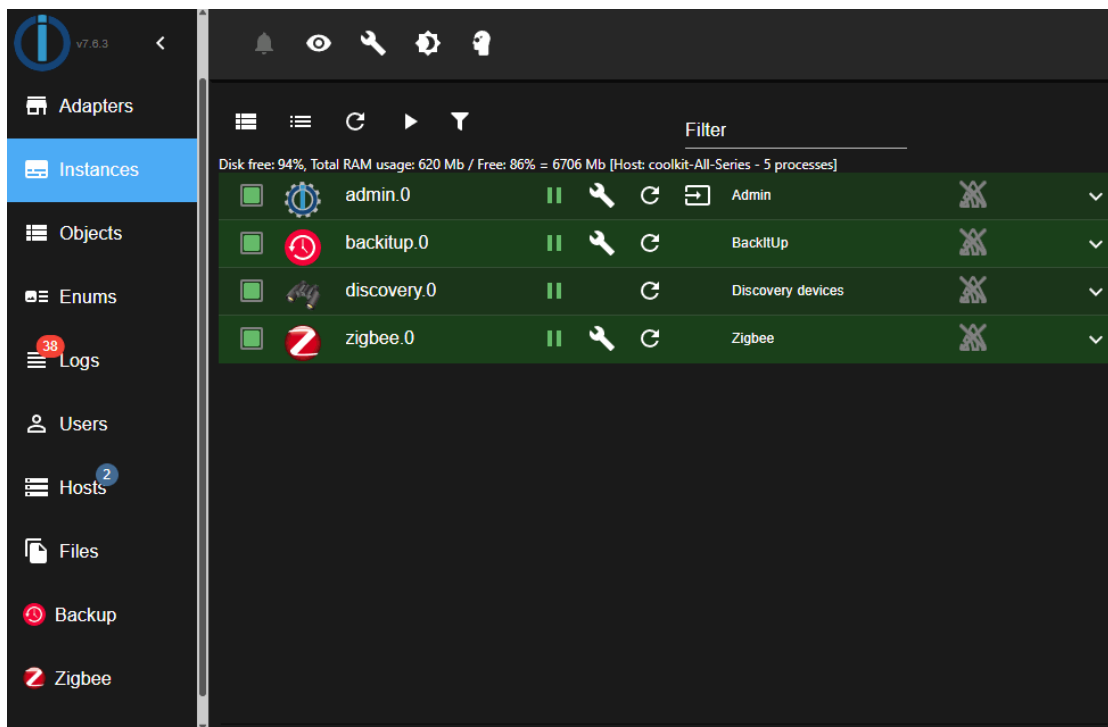
Wait until the status icon turns **green** — this indicates that the configuration is complete.



2.3.5.4 Step 3: Add a Zigbee Sub-device

Put your Zigbee device into pairing mode.

Then, go to the **Zigbee** page and click the **“Pairing”** icon to start searching for and automatically adding Zigbee devices.



3. How to Upgrade/Flash Firmware

All SONOFF Dongle products support firmware switching (including Zigbee Coordinator, Zigbee Router, and other firmware variants) through the [SONOFF Dongle Flasher](#) tool.

- **SONOFF Dongle Flasher:** <https://dongle.sonoff.tech/sonoff-dongle-flasher/>
- **Another option:** [Flash firmware via Home Assistant Add-on](#)

3.1 Supported Firmware

For ZBDongle-E(SONOFF Zigbee 3.0 USB Dongle Plus V2)

Firmware Type	Supported	Flashing Guide
Zigbee NCP	✓	Click to view
Zigbee Router	✓	Click to view
OpenThread RCP	✓	Click to view
MultiPAN RCP	✓	Click to view
Custom Firmware	✓	Click to view

3.2 How to Flash Customize Firmware

Please Check Link: https://dongle.sonoff.tech/guide/zbdongle-e/how_to_flash_customize_firmware/

3.3 How to Upgrade Zigbee Firmware

Please Check Link: https://dongle.sonoff.tech/guide/zbdongle-e/how_to_upgrade_zigbee_firmware/

3.4 How to Flash Zigbee Router Firmware

Please Check Link: https://dongle.sonoff.tech/guide/zbdongle-e/how_to_flash_zigbee_router_firmware/

3.5 How to Flash OpenThread Firmware

Please Check Link: https://dongle.sonoff.tech/guide/zbdongle-e/how_to_flash_openthread_firmware/

3.6 How to Flash MultiPAN Firmware

Please Check Link: https://dongle.sonoff.tech/guide/zbdongle-e/how_to_flash_multipan_firmware/

3.7 Flash Firmware via Home Assistant Add-on

Please Check Link: <https://dongle.sonoff.tech/guide/zbdongle-e/flash-firmware-via-home-assistant-add-on/>

When flashing with the [SONOFF Dongle Flasher](#), choose the firmware, the correct function, and then start flashing.

More Detailed Tutorials

<https://dongle.sonoff.tech/guide/zbdongle-e/introduction/>

Manufacturer Information

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China

ZIP code: 518000

Website: <https://sonoff.tech>

MADE IN CHINA

